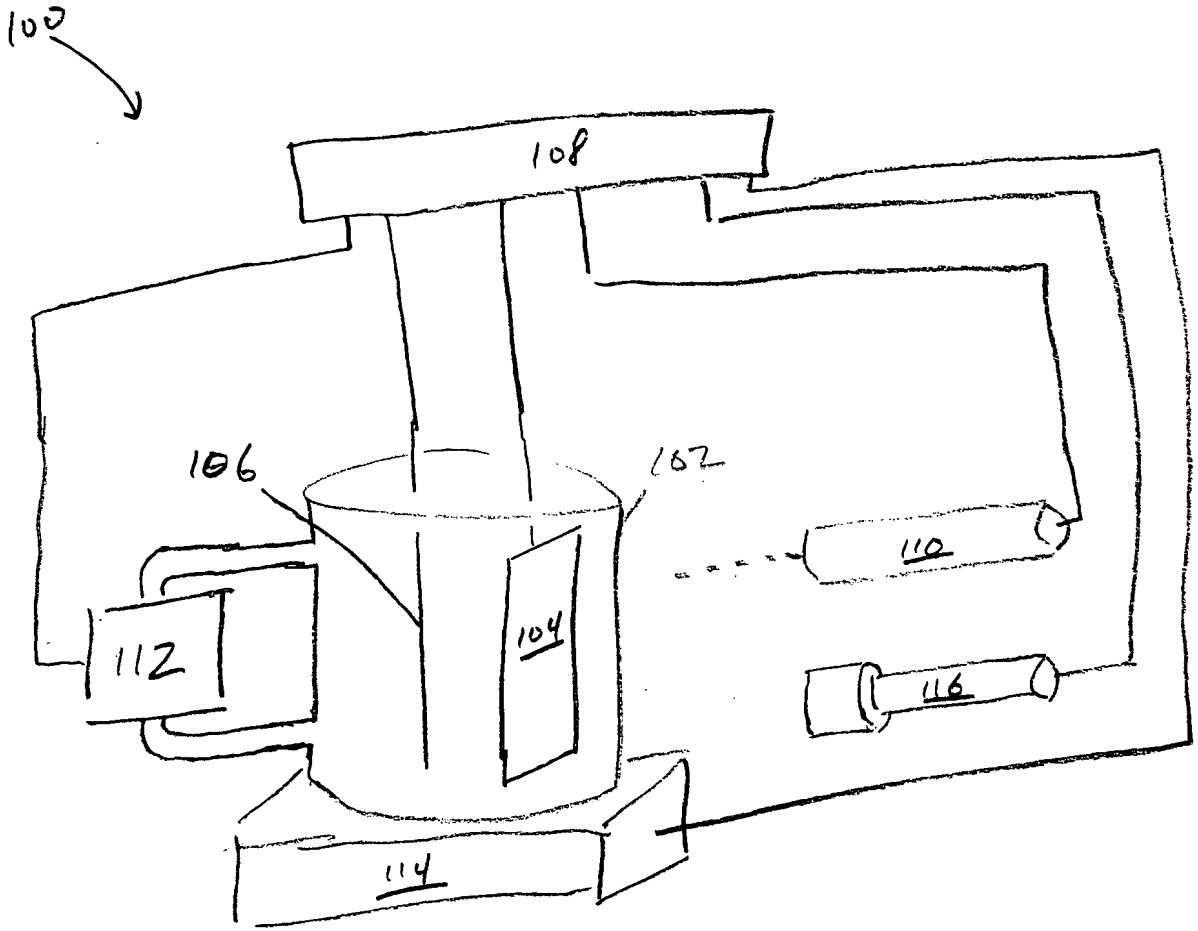

Fig 1

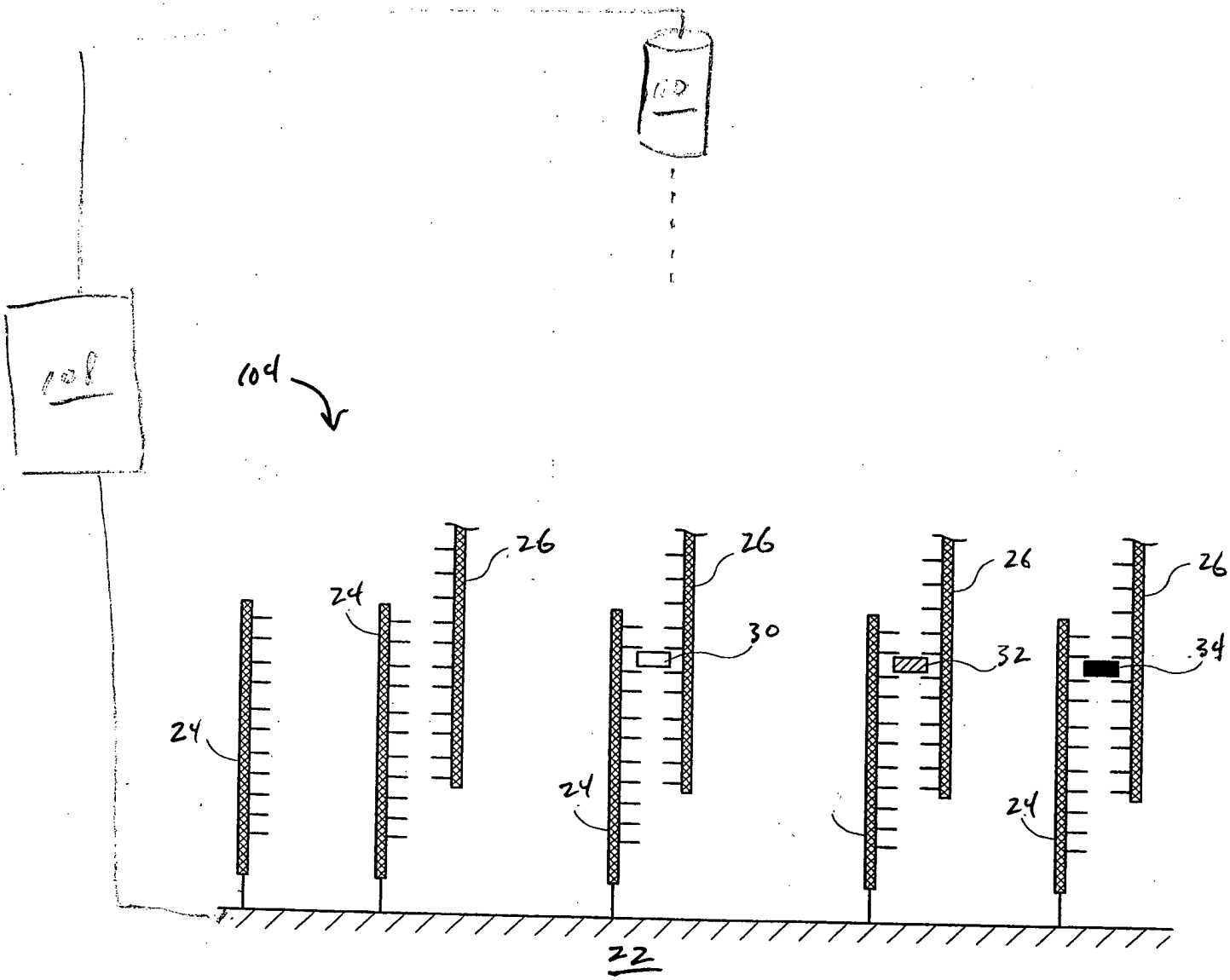

FIG. 2

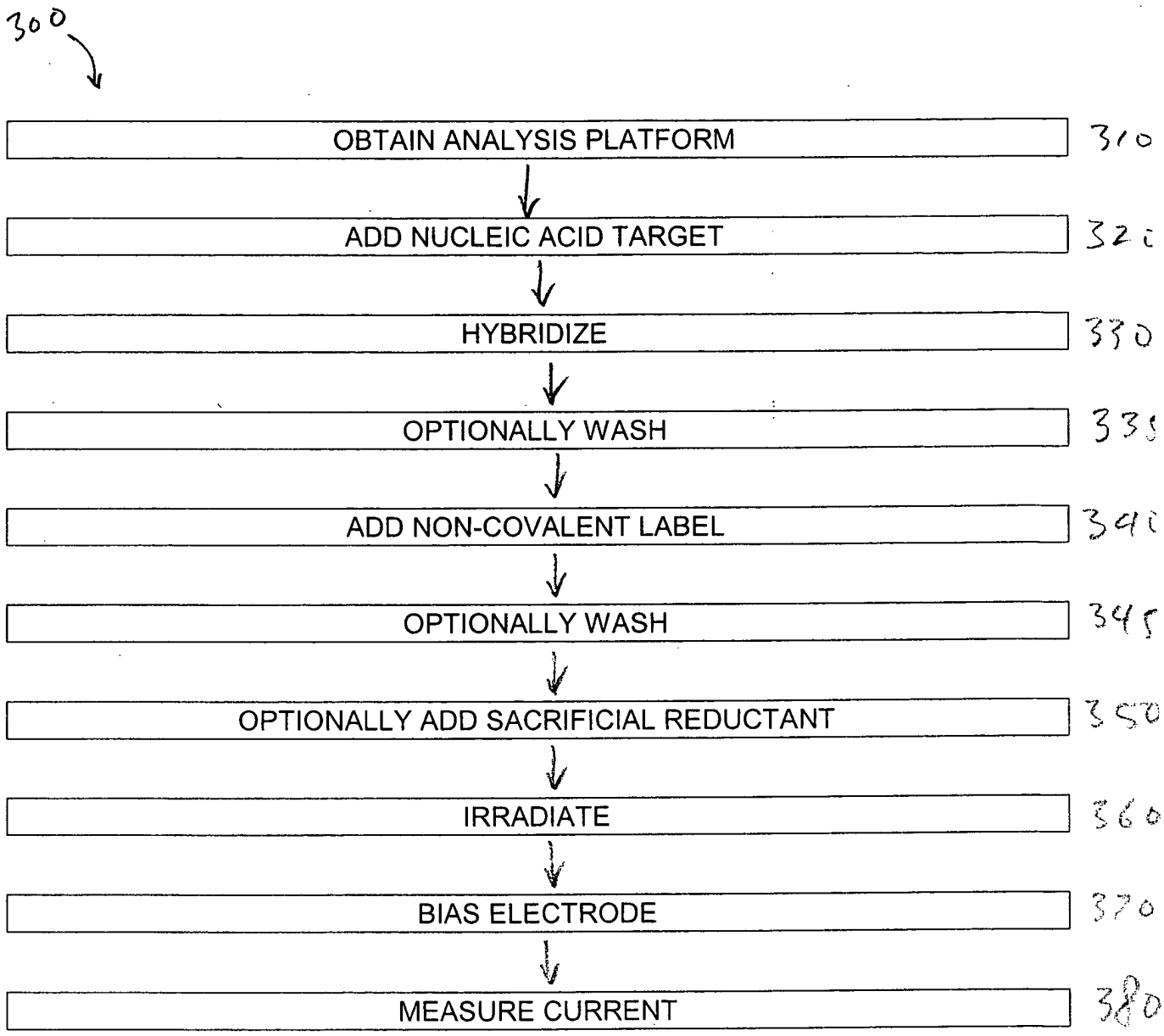
300
OBTAIN ANALYSIS PLATFORM
310
ADD NUCLEIC ACID TARGET
320
HYBRIDIZE
330
OPTIONALLY WASH
335
ADD NON-COVALENT LABEL
340
OPTIONALLY WASH
345
OPTIONALLY ADD SACRIFICIAL REDUCTANT
350
IRRADIATE
360
BIAS ELECTRODE
370
MEASURE CURRENT
380

FIG. 3

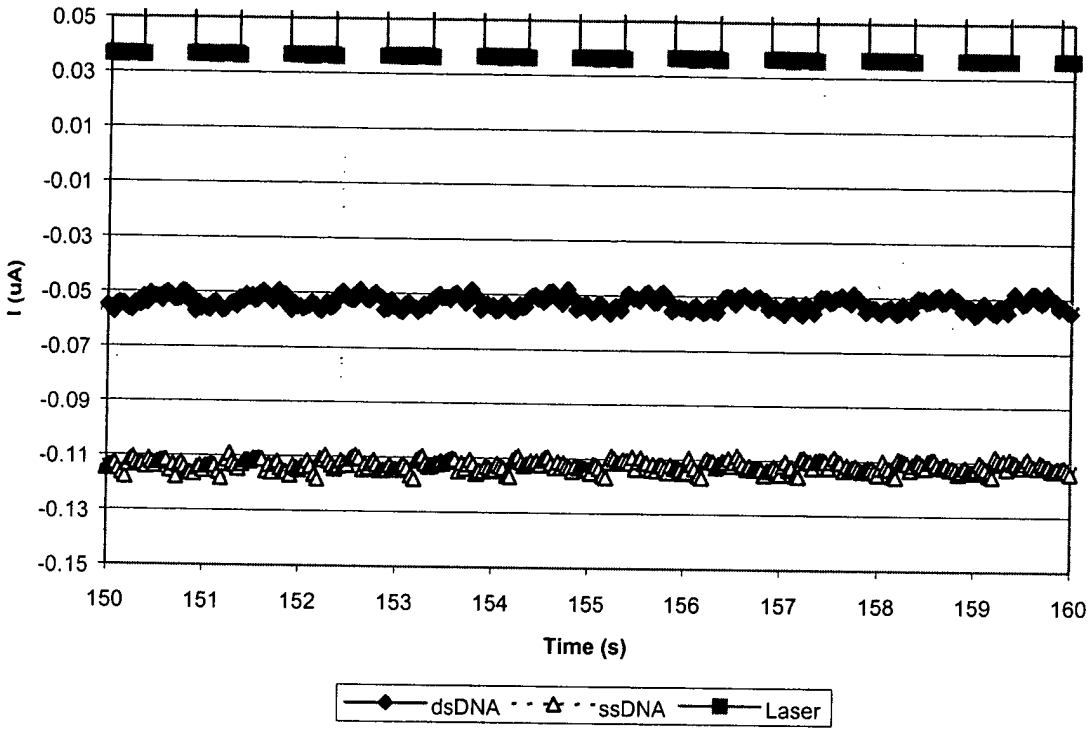
0.05
0.03
0.01
-0.01
-0.03
-0.05
-0.07
-0.09
-0.11
-0.13
-0.15
I (uA)
150
151
152
153
154
155
156
157
158
159
160
Time (s)
dsDNA
ssDNA
Laser

FIG. 4

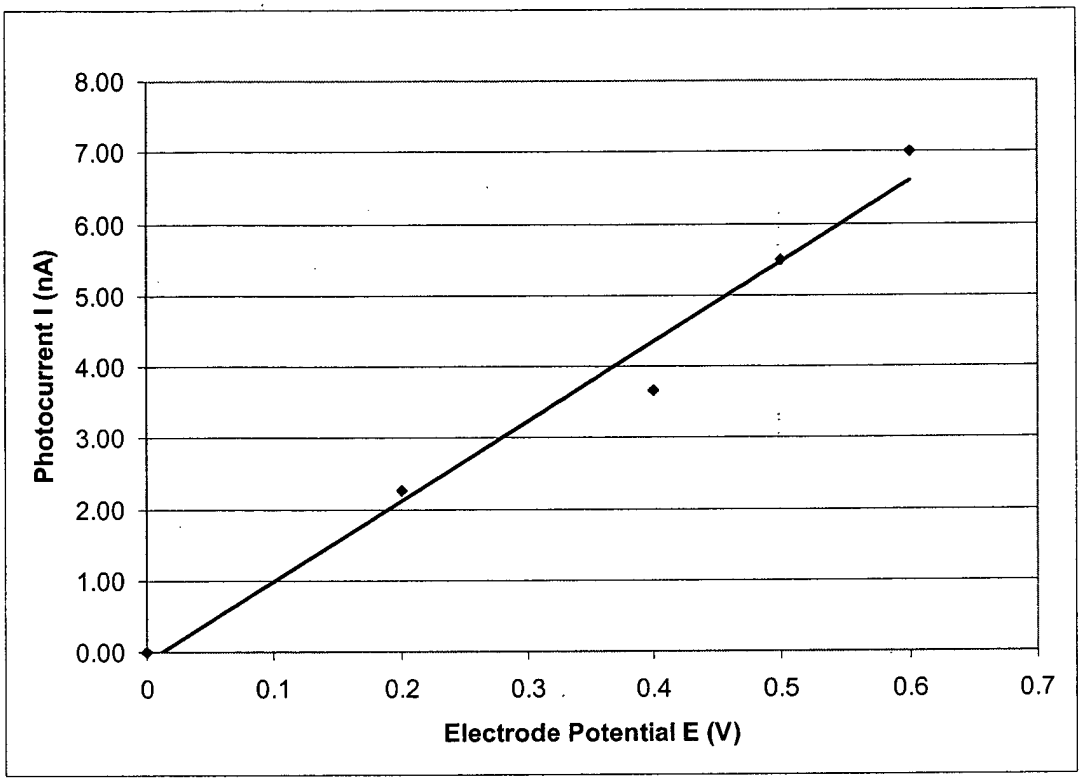
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Photocurrent I (nA)
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
Electrode Potential E (V)

FIG. 5